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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/812,055

03/30/2004

Reinhard H.H. Poetzsch

11884/415801

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23838 7590 09/23/2008

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EXAMINER

LOFTUS, ANN E

ART UNIT

PAPER NUMBER

3692

MAIL DATE

DELIVERY MODE

09/23/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/812,055 | Applicant(s) POETZSCH, REINHARD H.H. | |
| | Examiner ANN LOFTUS | Art Unit 3692 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/22/08, 6/26/08</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of the Claims

1. This action is in response to an amendment filed on 6/2/2008. Claims 1-10 and 12 are pending. Claims 11 and 13 are cancelled.
2. The application was filed on 3/30/2004. No priority is claimed on the oath.

Response to Arguments

3. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection, necessitated by amendment.
4. The applicant argues that Datey does not teach calculating a moment of a sum of spot values for two or more underlyings. Castellacci teaches calculating a moment of a sum of spot values for two or more underlyings in the section "Generalising the Lognormal Model." It would have been obvious to a person of ordinary skill in the art at the time of the invention to calculate a moment of a sum of spot values for two or more underlyings in order to handle multiple underlyings by calculating and using averages.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1- 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over "The Performance of Analytical Approximations for the Computation of Asian Quanto-Basket Option Prices", written by Datey, Gauthier, and Simonato in 2003 - herein referred to as Datey, in view of "Asian basket spreads and other Exotic Averaging Options", written by Castellacci and Siclari in 2003 – herein referred to as Castellacci.

As per claim 1, 2, 4, Datey teaches calculating option prices on a standard desktop computer on page 58, near line 1. It would have been obvious to a person of ordinary skill in the art at the time of the invention that the inputs were read into memory for the purpose of the calculations. Datey teaches that the inputs are comprised of an evaluation date, market and contract data for one or more underlyings belonging to a basket on page 61, Table 1.

Datey does not explicitly teach a put option. Castellacci teaches an indication of whether the NPV is designated for a call or put following equation 14. It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Davey to add reading into memory an indication of call or put in order to have a correct valuation from the calculations.

Davey teaches calculating a first moment of a sum of spot values of two or more underlyings between equations 1 and 3. Datey teaches calculating a second moment of the sum of spot values of two or more underlyings of the basket, where wherein the first

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and second moments are approximate lognormal distributions in the section IV Analytical Approximations.

Davey mentions Black Scholes, but Castellacci directly teaches applying it to moments. Castellacci teaches applying a Black Scholes formalism to the first and second moments to determine the net present value of an average spot basket option. It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Davey to add applying a Black Scholes formalism to the first and second moments to determine the net present value of an average spot basket option in order to use a credible trusted valuation technique.

As to claim 3, Davey does not explicitly teach forward spots. Castellacci teaches a modified forward spot between equations 8 and 9. It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Davey to add a modified forward spot for the two or more underlyings in order to extend the pricing method to cover more types of options.

As to claims 5 and 6, Davey teaches a modified strike value in footnote 1.

As to claims 7 and 8, Davey teaches a modified normal distribution

As to claims 9 and 10, Davey teaches a modified normal distribution function on page 68.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davey and Castellacci in view of Official Notice.

As to claim 12, Davey teaches an output device (desktop computer with implied monitor) on page 58, near line 1. It would have been obvious to a person of ordinary skill in the art at the time of the invention that the net present value calculated would be displayed on the output device. Davey does not teach that a first message would be displayed if the net present value is greater than a predetermined value, nor a second message if the net present value is less than a predetermined value.

Official Notice is taken that the following was old and well-known in the art at the time of the invention. The goal of pricing options is to determine when to buy and sell, and the determination is made by comparing the market price to the calculated net present value. It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Davey and Castellacci to add a first message if the option is overpriced or underpriced to help the user immediately determine how to take advantage of the situation. It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Davey and Castellacci to add if the net present value is greater than the predetermined value then displaying a first message on an output device, and if the net present value is less than the predetermined value then displaying a second message on the output device in order to make quick and accurate profitable use of the displayed information.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. While portions of interest have been indicated, all references should be considered for the entirety of their teachings.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ann Loftus whose telephone number is 571-272-7342. The examiner can normally be reached on M-F 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Abdi can be reached on 571-272-6702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AL

/Kambiz Abdi/
Supervisory Patent Examiner,
Art Unit 3692